## REMARKS

Applicants have amended claim 1 to include the limitations of claim 3. The limitations on the heat sealable layer added to claim 1 find support, for example, in paragraphs [0029] and [0036] of the specification. Claims 3, 9, 11, 12 and 15 have been cancelled, and claim 4 has been amended to reflect the amendment to claim 1.

Applicants choose not to respond to the provisional double patenting rejection at this time, because the rejection is provisional as the Examiner points out correctly.

Claims 1-16 have been rejected under 35 USC 112, first paragraph, for lack of enablement. Applicants respectfully traverse this rejection in light of the amendments to claim 1.

Claim 1 recites a heat sealable layer and an intermediate layer. The Examiner contends that the specification does enable the full scope of the two recited layers. With respect to the heat sealable layer, the Examiner states, "The breadth of the claims is so broad as to encompass every polymer, such as non-olefinic polymers, that is heat sealable having the materials properties claimed. However, applicant only discloses α-olefin based heat sealable layers that meet the limitations of the claim." See paragraph 5 of the Action.

Applicants have amended claim 1 to state that the heat sealable layer is a random copolymer or a block copolymer obtained by polymerization of two or more kinds selected from α-olefin monomers having a carbon number of 2 to 10. The specification enables "α-olefin based heat sealable layers" having the recited properties, as the Examiner points out properly.

With respect to the intermediate layer, the Examiner contends, "the scope of the claims is so broad as to encompass any polymer as the intermediate layer, whereas the only polymeric materials disclosed for the intermediate layer in applicant's specification are α-olefins." See paragraph 5 of the Action.

Applicants have amended claim 1 to state that the intermediate layer comprises an α-olefin copolymer containing a cold xylene-soluble fraction in a proportion of not more than 3%

by weight. The claimed α-olefin intermediate layer is enabled by the specification, as the Examiner points out properly.

The enablement rejection of claims 1, 2, 4-8, 10, 13, 14 and 16 should be withdrawn because the claimed heat sealable layer and the claimed intermediate layer are enabled by the specification.

Claims 1-16 have been rejected under 35 USC 112, second paragraph, as indefinite. Applicants respectfully traverse this rejection in light of the amendment to claim 1.

Claim 1 states that the heat sealing energy in each of the machine direction of the film and the direction transverse to the machine direction of the film is not less than 11N· cm/15 mm when the film is sealed.

The Examiner contends, "claim 1 does not recite what the film is sealed to; therefore it would be impossible for one of ordinary skill in the art to determine the breadth and scope of claim 1 because what the film is sealed to is not specified." The specification explains that the sealing of the film is so-called "central principal rafter seal." See paragraph [0029] of the specification. Persons skilled in the art would know that a heat sealable layer adheres to a sealable layer in a "central principal rafter seal."

Applicants have amended claim 1 to state that the film is sealed so that a portion of the sealable layer adheres to another portion of the sealable layer. Accordingly, the claimed sealing as amended is not indefinite.

The Examiner further contends as follows:

> Paragraph [0036] of the pre-grant publication describes heat sealing energy as such: "The heat sealing energy can be led from the chart obtained by the measurement of the heat sealing strength. In the present invention, the area surrounded by the curve showing the heat sealing strength and the distance of movement in the chart is taken as the heat sealing energy." It is unclear from this statement how the determination of a value for heat sealing energy is made. Further clarification in applicant's response is recommended.

Applicants further clarify below how the heat sealing energy is measured in response to the Examiner's request.

When a force acts on a thing, the work done (energy) is expressed as F x D, wherein F is a force applied on the thing and D is the distance the thing is moved by the applied force. In the measurement of the claimed sealing energy, a test piece is held by two opposing chucks and pulled apart in opposite directions. See paragraph [0030] and FIG. 1 of the application. As shown in FIG. 2, at the beginning the test piece simply expands and thus no significant force (strength) arises. When the test piece starts to break up, a force is applied to keep breaking up the test piece. When the test piece breaks apart (the failure of the sealing), the force returns to zero. Accordingly, the integral of F (force applied to the test piece) over D (distance the force is applied) corresponds to the sealing energy (the shaded area in FIG. 2).

Applicants admit that the term "the distance of movement in the chart" in the specification might not be the best choice of words to describe the distance explained above. In essence, "the distance of movement in the chart" means "the distance the chucks holding the test piece have travelled, which is shown in the chart (FIG. 2)." Applicants are willing to amend the specification to add this explanation, if the Examiner asks applicants to do so.

The indefiniteness rejection of claims 1, 2, 4-8, 10, 13, 14 and 16 should be withdrawn because claim 1 as amended is not unclear.

Claims 1-5, 7-10, 12 and 14-16 have been rejected under 35 USC 103(a) on U.S. Patent No. 4,726,999 (Kohyama). Applicants respectfully traverse this rejection.

Claim 1 recites an intermediate layer disposed between the heat sealable layer and the substrate layer and comprising an α-olefin copolymer containing a cold xylene-soluble fraction in a proportion of not more than 3% by weight. The Examiner admits that Kohyama does not teach or suggest the claimed intermediate layer. See paragraph 18 of the Action.

To overcome the deficiency of Kohyama, the Examiner contends, "Component (II) of the heat sealable layer of Kohyama is disclosed to have high strength expressed in the values of Young's modulus (i.e. tensile modulus of elasticity) disclosed. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to have duplicated the

heat seal layer of Kohyama in order to provide a laminate structure with higher Young's modulus and therefore produce a tougher laminate." See paragraph 19 of the Action. In short, the Examiner argues that persons of ordinary skilled in the art would have introduced another heat sealable layer made of Kohyama's Component II between Kohyama's substrate and the top sealable layer, because Kohyama's Component II has a higher Young's modulus. Applicants respectfully disagree.

Claim 1 requires that the intermediate layer comprise an α-olefin copolymer containing a cold xylene-soluble fraction in a proportion of not more than 3% by weight. However, the Examiner does not explain how and why a higher Young's modulus would result in the claimed cold xylene-soluble fraction at all, especially in light of the disclosure that Kohyama's Component II has crystallinity of 5 to 60%, as the Examiner points out properly in paragraph [0012] of the Action. In fact, no part of Kohyama teaches or suggests that Kohyama's polymer includes an α-olefin copolymer containing a cold xylene-soluble fraction in a proportion of not more than 3% by weight.

The claimed laminate film is directed to packaging heavy goods. See, for example, paragraph [0008] of the specification. Applicants have achieved such a packaging film by introducing the intermediate layer recited in claim 1 to increase the toughness of the packaging film. On the other hand, Kohyama's film is direct to low temperature sealing and superior scratch resistance and antiblocking properties. See column 1, lines 19-23, of Kohyama. Accordingly, Kohyama discloses a heat sealable layer suited for improving the surface properties of Kohyama's laminate film. See column 1, lines 28-54, Kohyama. No part of Kohyama teaches or suggests improving the toughness of Kohyama's laminate film by introducing a intermediate layer as recited in claim 1.

The rejection of claims 1-5, 7-10, 12 and 14-16 under 35 USC 103(a) on Kohyama should be withdrawn because Kohyama does not teach or suggest the claimed invention as a whole.

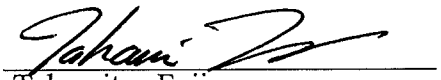
The remaining obviousness rejection relies on Kohyama and thus should be withdrawn as well because Kohyama does not provide the teachings for which it is cited.

In light of the above, a Notice of Allowance is solicited.

In the event that the transmittal letter is separated from this document and the Patent and Trademark Office determines that an extension and/or other relief is required, applicants petition for any required relief including extensions of time and authorize the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing docket no. 358362011500.

Respectfully submitted,

Dated: April 12, 2010

By: 

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